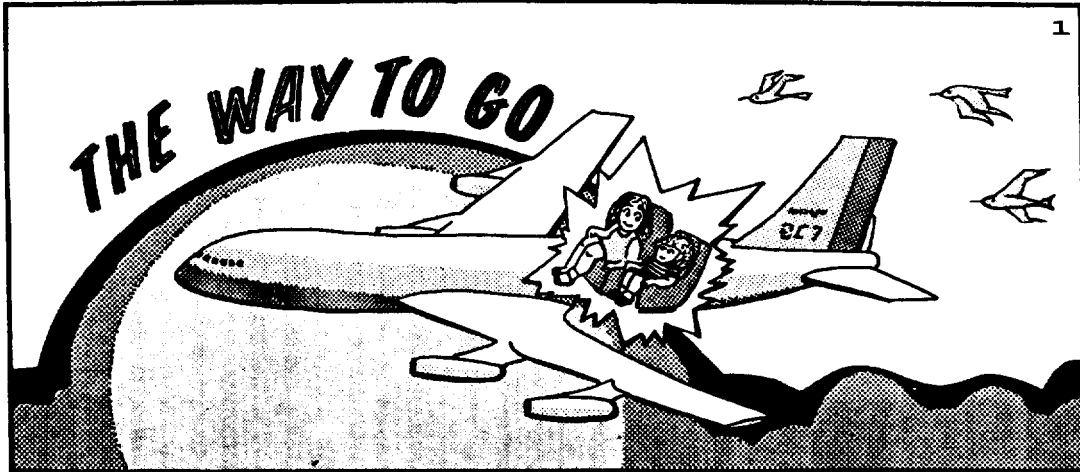


ACTIVITY 5 (Continued)

Distribute THE WAY TO GO (Student Handouts 7, 8, and 9).



Cut sheets apart, stack, and staple to form a book. Divide students into groups. Read the story or have students read it. Ask each group to dramatize or retell the story in their own words.

Extended Activities

- Contact the nearest large airport that has a control tower. Ask an air traffic controller to come speak to the class about his job and the use of radios in navigation. Prepare each guest with a Resource Speakers' Guide (located in the Teacher Resource Guide).
- Invite an airline pilot, a stewardess, and an air traffic controller to come to the class to do a simulated flight. Ask the pilot and controller to simulate their job in preparing for take-off. Have the stewardess do her pre-flight briefing to the passengers (students). Continue in this manner until touch down. Prepare each guest with a Resource Speakers' Guide (located in the Teacher Resource Guide).
- Invite a pilot from a local airport to instruct students in the way he uses radios to navigate and communicate. Prepare each guest with a Resource Speakers' Guide (located in the Teacher Resource Guide).

UNIT 6 ACTIVITY 1

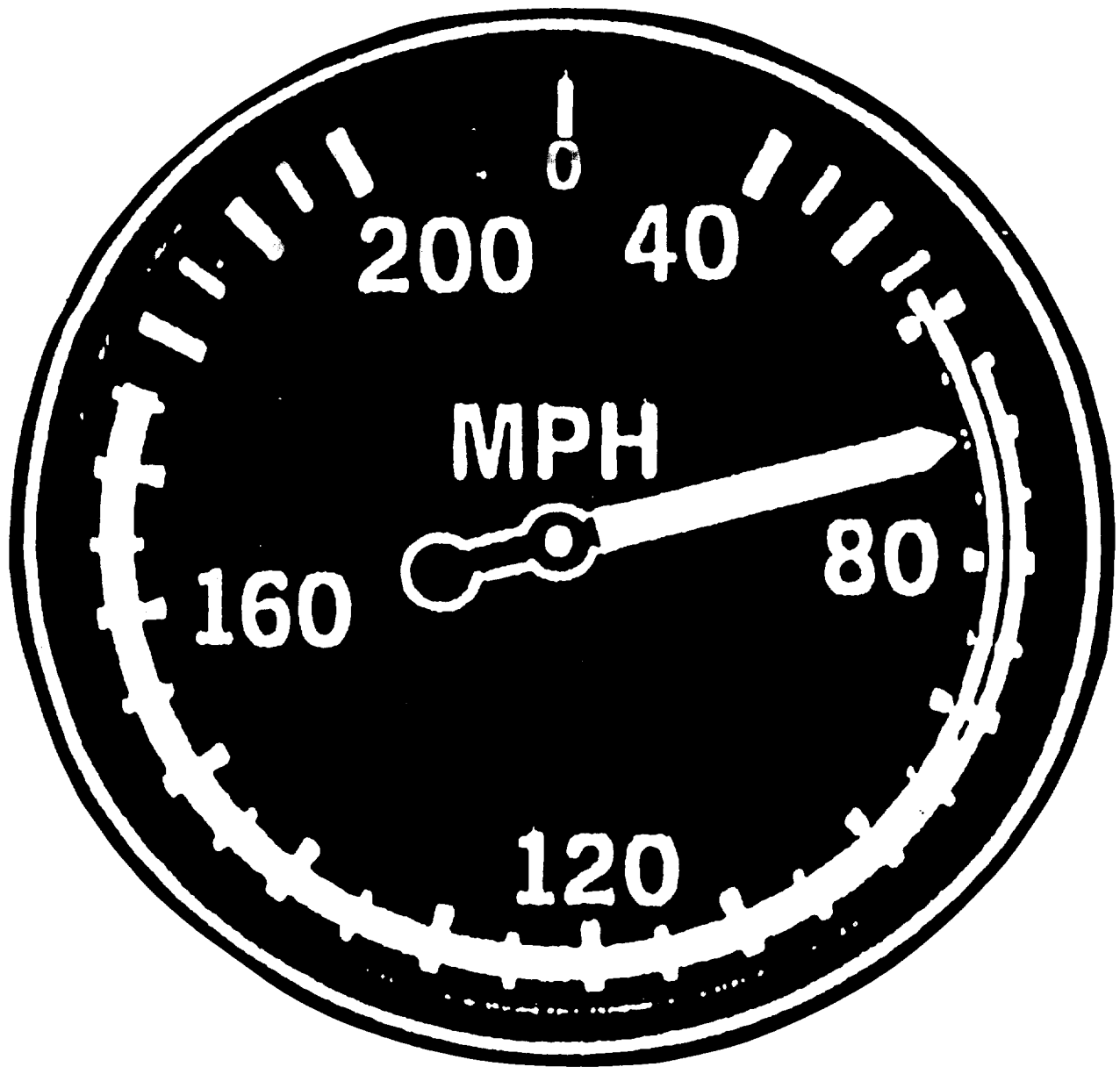
TEACHER RESOURCE SHEET 1



ALTIMETER

UNIT 6 ACTIVITY I

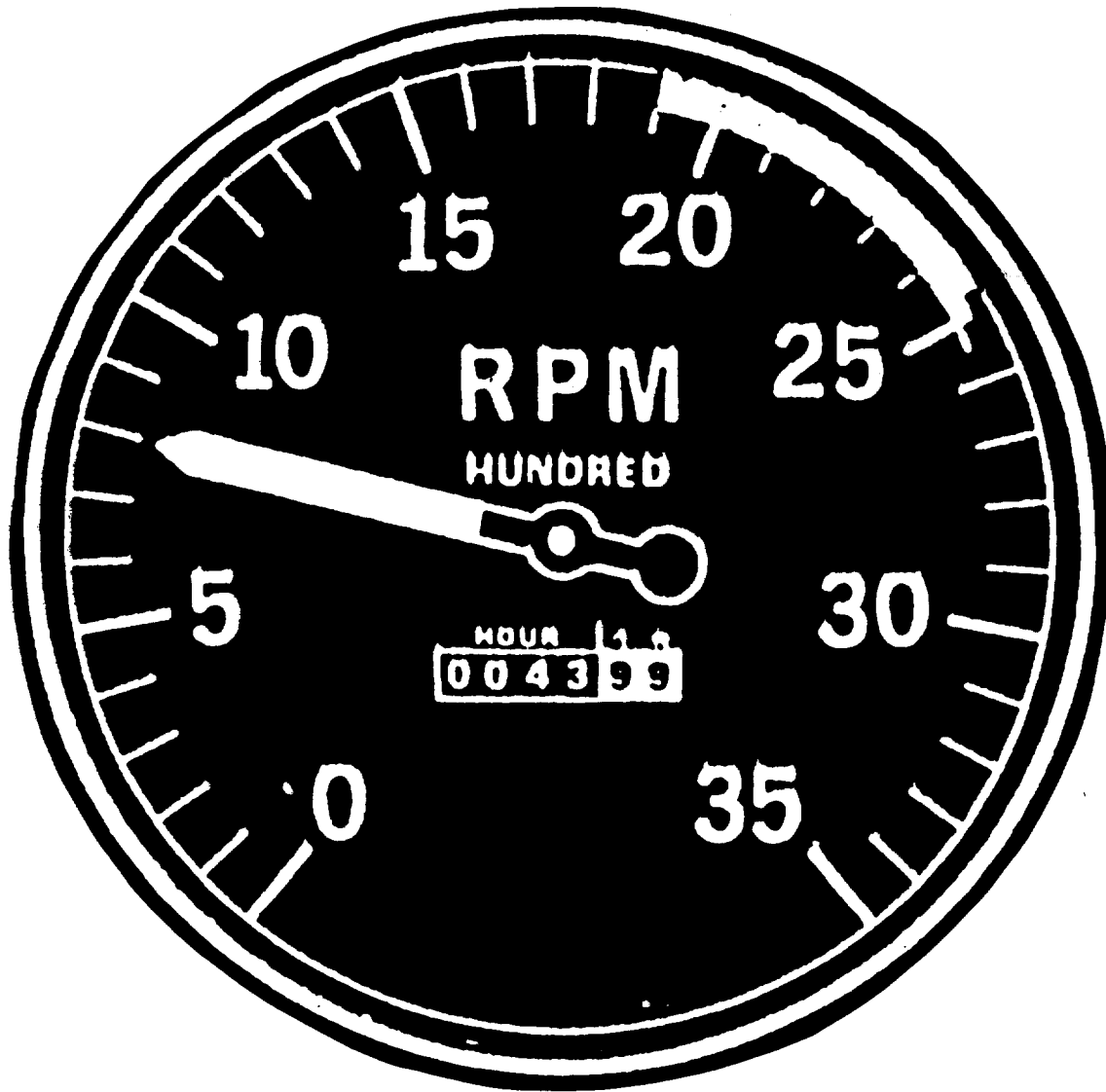
TEACHER RESOURCE SHEET 2



AIRSPEED INDICATOR

UNIT 6 ACTIVITY 1

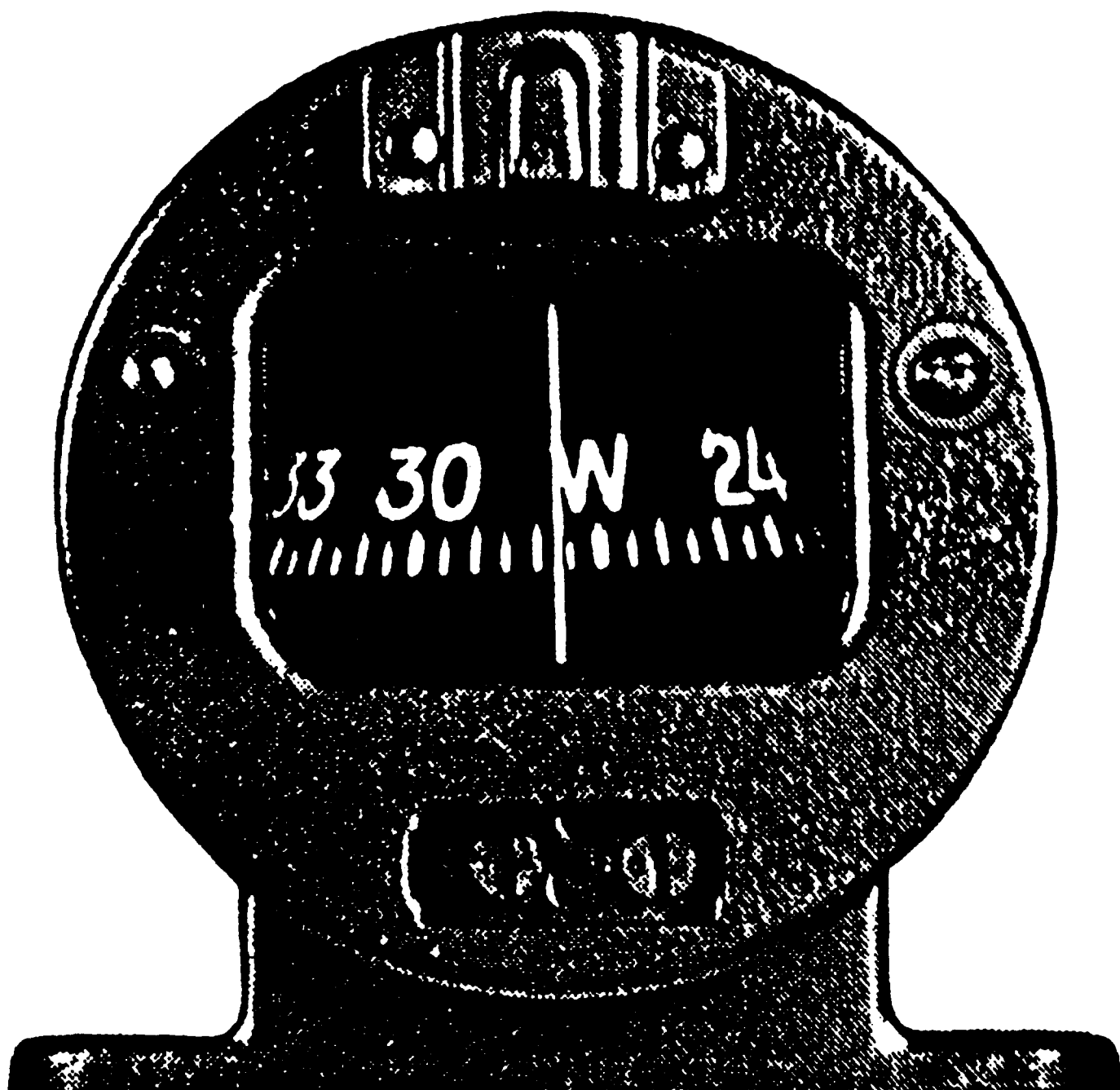
TEACHER RESOURCE SHEET 3



TACHOMETER

UNIT 6 ACTIVITY 1

TEACHER RESOURCE SHEET 4



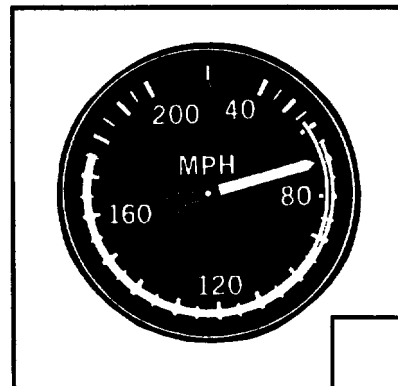
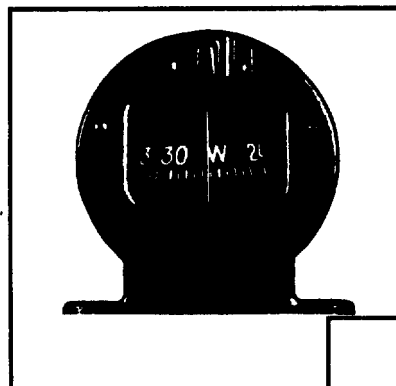
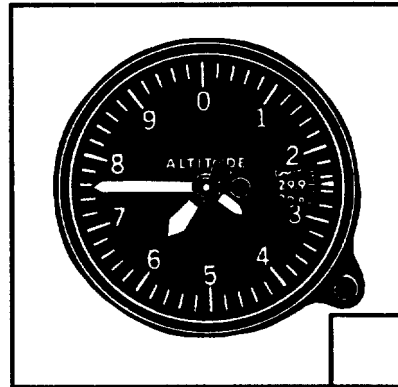
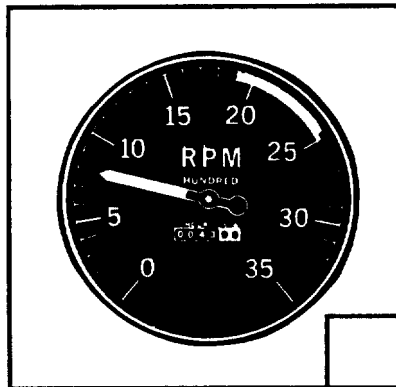
COMPASS

UNIT 6 ACTIVITY I

STUDENT HANDOUT 1

Directions: Read the descriptions.
Number each instrument.

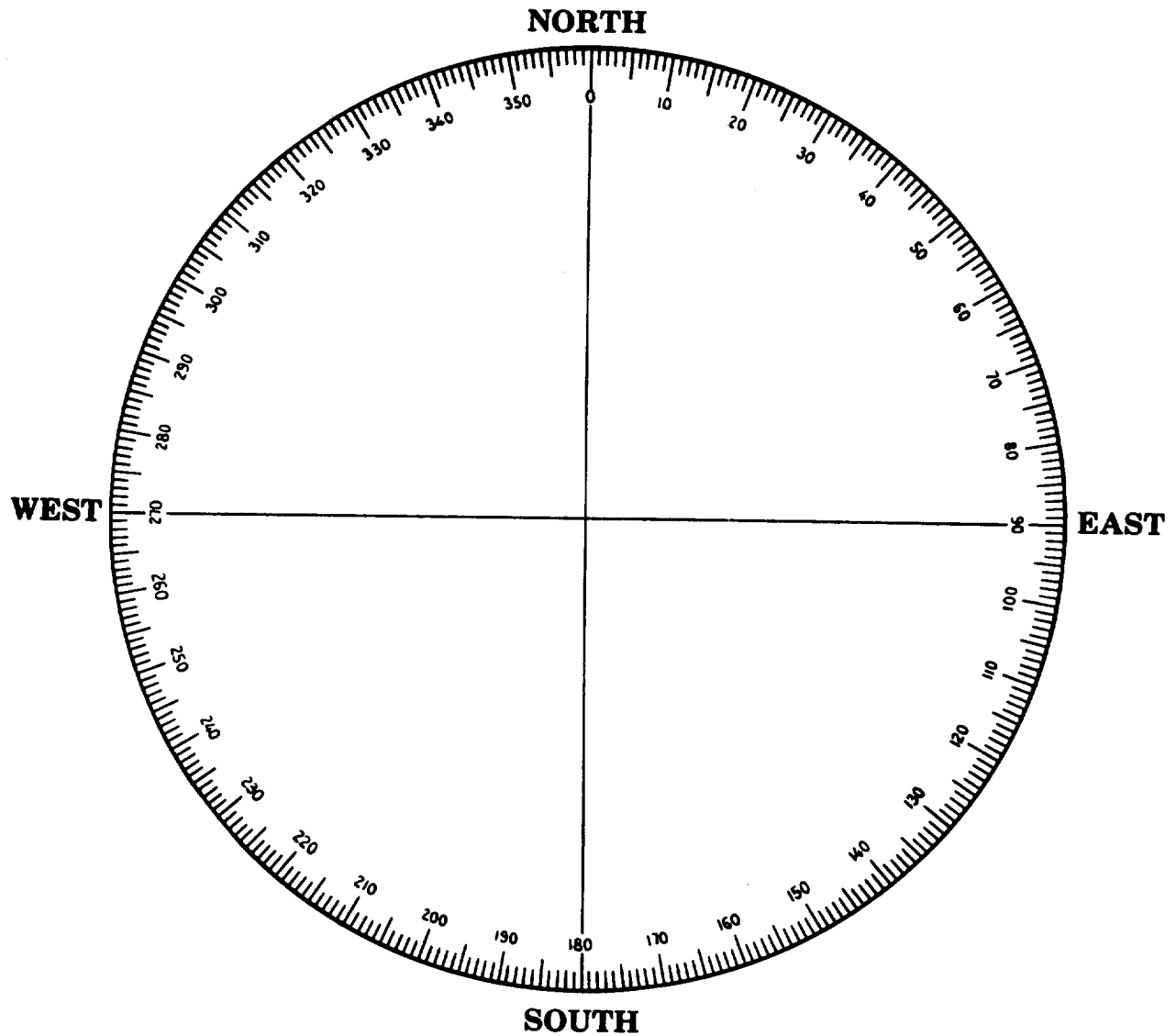
1. The altimeter tells the pilot how high he is above the ground.
2. The tachometer tells the pilot how fast the engine is running.
3. The airspeed indicator tells the pilot how fast the airplane is moving through the air.
4. The compass tells the pilot the direction he is flying.



UNIT 6 ACTIVITY 2

STUDENT HANDOUT 2

THE COMPASS



The **CARDINAL POINTS** on the compass are North, South, East, and West.

The distance between the lines on the compass is called a **DEGREE**.

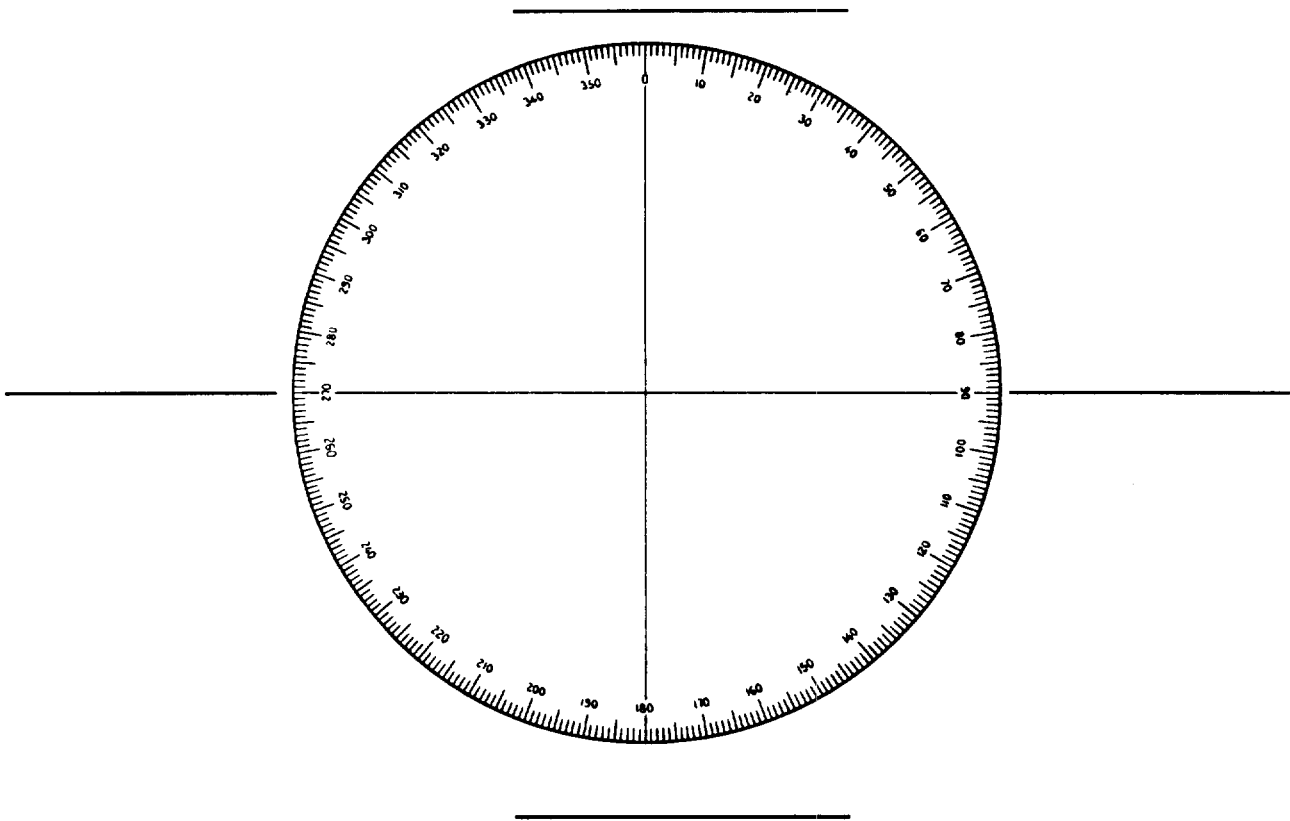
There are 360 degrees on the compass.

UNIT 6 ACTIVITY 2

STUDENT HANDOUT 3

Directions: Fill in the blanks.

THE COMPASS

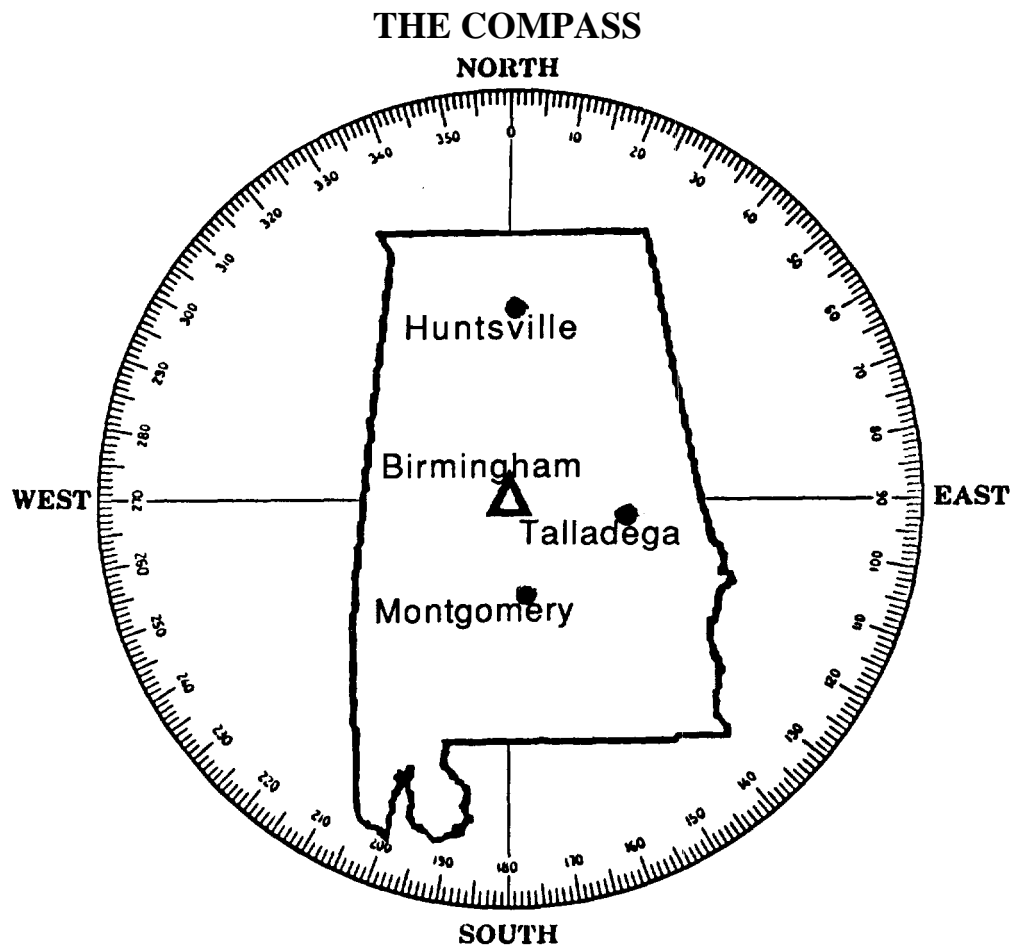


1. The cardinal points on the compass are __, ____, ____, and ____.
2. The distance between the lines on a compass is called a ____.
3. There are____degrees on the compass.
4. Label the cardinal points on the compass pictured above.

UNIT 6 ACTIVITY 2

STUDENT HANDOUT 4

Directions: You live in Birmingham. Name the city you will travel to.
Give the direction you must fly to reach the city.



1. If you want to see rockets you would fly to _____. What direction will you fly?
2. A trip to _____ would take you to the Capitol of Alabama. What direction will you fly? _____
3. Car racing at the Alabama International Motor Speedway would take you to the city of _____. What direction will you fly? _____

UNIT 6 ACTIVITY 4

STUDENT HANDOUT 5

SECTIONAL CHART

SYMBOLS HELPFUL TO THE PILOT



airport with paved runways --- one white dash for each runway



private airport--not for public use



tall tower



short tower



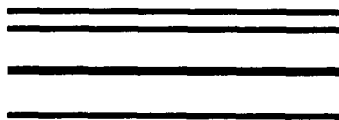
power lines



railroads



open pit mine



road

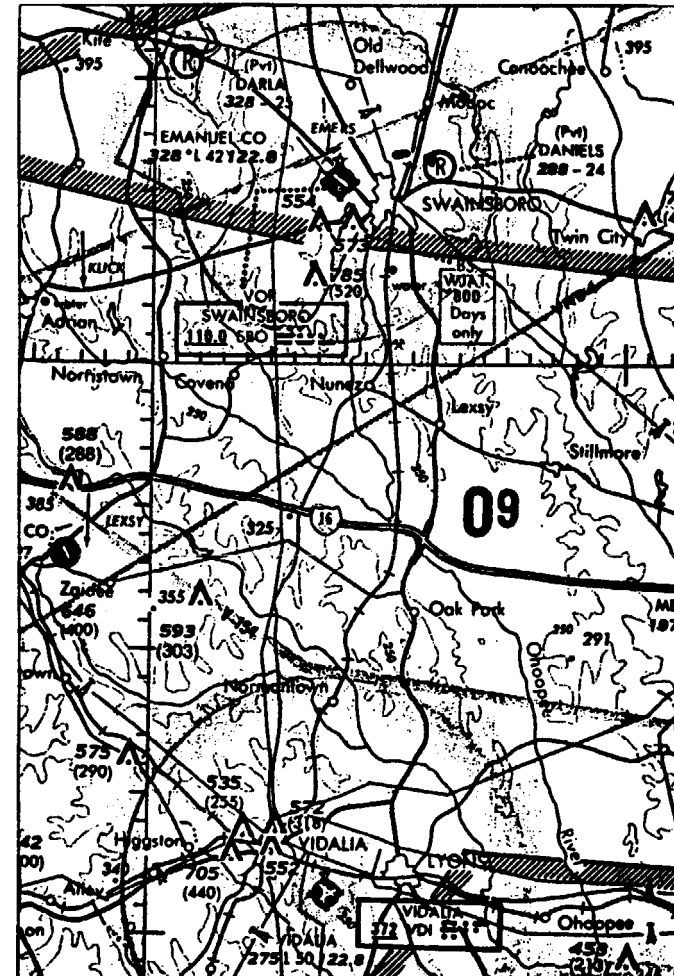
UNIT 6 ACTIVITY 4

STUDENT HANDOUT 6

Directions: Use the map to locate the answers.

1. There are _____ public airports.
2. There are _____ short towers.
3. There are _____ tall towers.
4. Put a blue X on the four-lane highway.
5. Circle the airport with three runways red.
6. There are _____ private airports.
7. Put a red X on a railroad.
8. Circle the open-pit mine with blue.

SECTIONAL CHART



UNIT 6 ACTIVITY 5

STUDENT HANDOUT 7



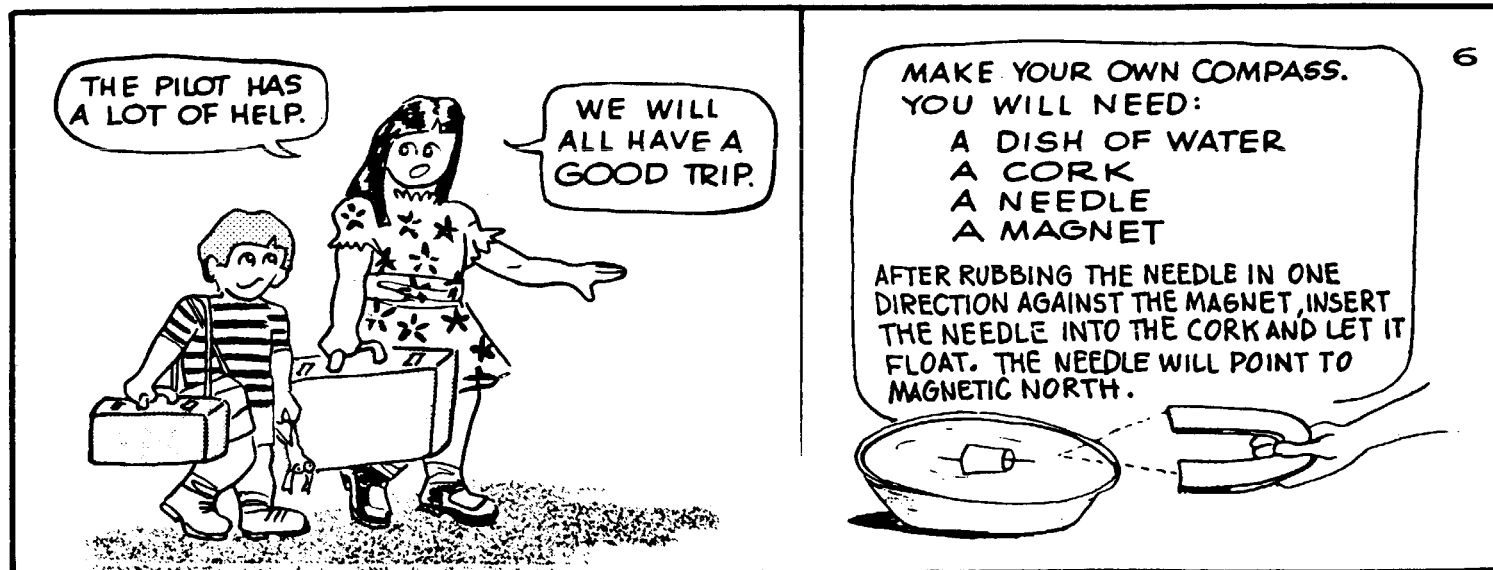
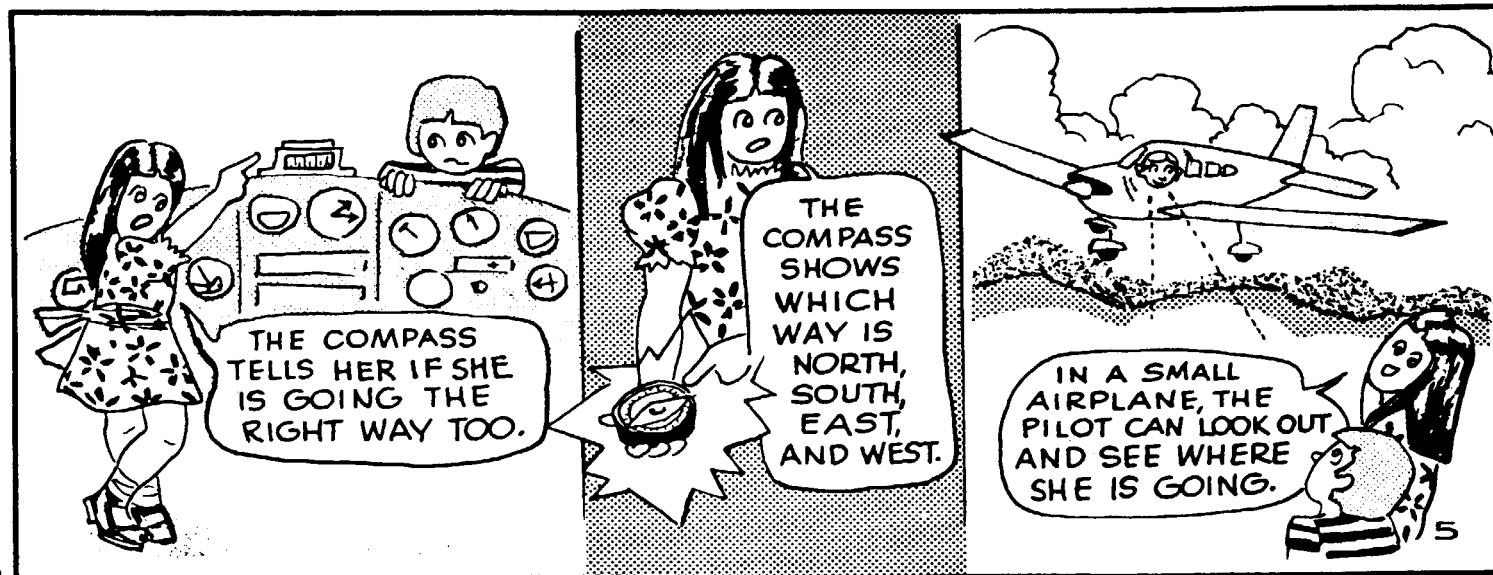
UNIT 6 ACTIVITY 5

STUDENT HANDOUT 8



UNIT 6 ACTIVITY 5

STUDENT HANDOUT 9



UNIT 7: AIRPORTS

PURPOSE OF UNIT 7

The purpose of Unit 7 is to introduce the importance of airports. Specifically, students should:

1. sense the importance of airports to all mankind;
2. recognize different kinds of airports;
3. experience first hand the planning of an airport;
4. discover the many careers needed to make an airport; and
5. be able to give examples of how airports boost economic growth.

MAJOR MESSAGES IN UNIT 7

- The airport is a necessary component of our national transportation system.
- Airports are essential to the economic growth of communities.
- Airports are a community's link with the rest of the world.

BACKGROUND INFORMATION FOR UNIT 7

Unit 7 consists of 2 topics:

TOPIC 1: KINDS OF AIRPORTS

TOPIC 2: PLANNING AN AIRPORT

Topic 1 defines the term "airport" and identifies the different kinds of airports.

Topic 2 introduces the airport as the community's link with the rest of the world. Planning is emphasized as an essential part of present and future airport development.

VOCABULARY WORDS FOR UNIT 7

Topic 1-2

airport
hangar
windsock
ramp
tower
runway
taxiway
terminal
controller

TOPIC 1: KINDS OF AIRPORTS

The activities, suggested materials, grade level, and related subject areas for each activity are summarized below.

<u>ACTIVITY</u>		<u>MATERIALS NEEDED</u>	<u>GRADE LEVELS</u> <u>SUBJECT</u>
1.	A Trip to the Airport	A TRIP TO THE AIRPORT (This Federal Aviation Administration booklet is free. See Teacher Resource Section for address.)	Grades K-3 language arts social studies
2.	Small Community Airport	Student Handout 1	Grades 1-3 language arts social studies
3.	Major City Airports	Student Handout 2	Grades 1-3 language arts social studies
4.	Airport Field Trip	chart paper Fantastic Flight Dictionary	Grades 1-3 language arts social studies

ACTIVITY 1: A TRIP TO THE AIRPORT

Direct the students' attention to airports. Arouse an interest by asking questions such as:

1. Have you ever wanted to visit an airport?
2. What do you think you would see at an airport?
3. Why do you think we need airports?
4. Do you think all airports are alike?

Read A TRIP TO THE AIRPORT to the students. Discuss questions similar to the following:

1. What is an airport?
2. In what ways did the airport help the people?
3. Describe some of the jobs being done by airport workers.
4. Do you think this was a large or small airport? Why?
5. In what size community would you find this airport? Why?

Extended Activities

- Have students tell about trips they have made by air.
- Divide the class into groups. Assign or let each group select a number of jobs as found in A TRIP TO THE AIRPORT. Ask students to research information about each job (for example: pay scale, duties, and educational requirements). Ask students to report their findings to the class. Students may use library sources or free Federal Aviation Administration publications such as:

GA-300-122 Career Pilots and Flight Engineers

GA-300-124 Aviation Maintenance

GA-300-124 Airport Careers

GA-300-126 Airline Careers

GA-300-127 Flight Attendants

GA-300-128 Government Careers

ACTIVITY 1 (Continued)

- Ask resource people such as a pilot, an air traffic controller, an aircraft mechanic, a stewardess, a ticket agent, or an airport manager to speak to the class. Prepare each speaker with a Resource Speakers' Guide (located in the Teacher Resource Section).

ACTIVITY 2: SMALL COMMUNITY AIRPORTS

Begin by telling students that small community airports are for non-airline aircraft (small planes that carry non-paying passengers) to land or take off. The runway may be a grass strip or paved. Distribute Student Handout 1. Ask students to identify and discuss major features such as:

1. Runway --- a special place for planes to take off and land
2. Windsock --- wind direction indicator
3. Ramp --- a special parking area for aircraft
4. Auto Parking Area
5. Office/Lounge Area
6. Aircraft Fuel Pumps
7. Hangar --- a place to store aircraft

Ask students to pretend that they are pilots about to land. Instruct them to analyze the handout and determine features they will utilize while at the airport (ramp, windsock, fuel, runway, lounge, auto parking and hangar) and give reasons why these features are a necessity.

Extended Activities

- Mark off a runway and ramp area on the classroom floor with masking tape. Provide boxes and other materials for students to make a windsock, fuel pumps, lounge area and a hangar. Let students experience airport operations as they take turns role playing planes landing or taking off, an aircraft mechanic, fuel pump operator, injured person waiting for an air ambulance, or student pilot.
- Tell students to pretend that they are pilots. Ask students to write a story about their stop at a small community airport including features and services they will use. Have them illustrate their story.

Ask younger students to draw a picture about their stop at a small community airport. Allow each student ample time to share his or her drawing with the class.

ACTIVITY 3: MAJOR CITY AIRPORT

Tell students that major city airports are much larger than small city airports. Passengers come to major city airports by car or by small aircraft from small community airports. Commercial airlines (large jets) take these passengers to places all over the United States and to countries across the ocean. Major city airports are located away from the center of the city for safety and noise reasons. Because of their size, many kinds of services must be provided for the many passengers that are landing or taking off. Phones, restrooms, restaurants, a post office, magazine stands, and seating areas are among a few of the services found at larger airports. Some very large city airports employ as many as 50,000 workers.

Distribute Student Handout 2. Ask students to identify and discuss features not found at a small community airport.

1. Taxiway --- a paved area used by planes coming to and from the runway.
2. Control tower --- a tall building with a glassed-in room at the top. Controllers prevent accidents by watching traffic in the air and on the ground.
3. Terminal --- a building where passengers buy tickets, pick-up or check baggage, wait for planes to arrive or depart, find food and restrooms.
4. Fuel truck---a truck used to fuel aircraft at their parking spots.

Conduct a brainstorming session. Ask students to think of reasons why major city airports have special features such as:

1. control towers,
2. taxiways,
3. scheduled airlines,
4. mobile fuel trucks,
5. very large work forces, and
6. locations outside the city.

ACTIVITY 3 (Continued)

Extended Activity

- Ask students to search for information concerning the following:
 1. the world's busiest airport,
 2. the number of take offs and landings possible at the world's busiest airport per hour or per day,
 3. the world's largest airport,
 4. the number of passengers using the world's largest airport per year and per day, and
 5. the number of runways, terminals, and gates at the world's largest airport.

ANSWERS:

1. Chicago International Airport at O'Hare Field
 2. Approximately 800,000 takeoffs and landings per year or more than one every minute day and night.
 3. Dallas/Fort Worth Airport in Texas
 4. Sixty million per year
 5. 9 runways, 13 terminals and 260 gates
- Develop a MAJOR AIRPORTS IN ALABAMA bulletin board. Display a large map of Alabama. Ask students to search for information about each of the four largest airports in Alabama, such as:
 1. location
 2. number of employees
 3. number of take off and landings each year
 4. number of passengers served each year.

Display this information on the map of Alabama near each major airport.

ACTIVITY 4: AIRPORT FIELD TRIP

Plan a trip to the nearest small airport or, if possible, to one of Alabama's larger airports (Huntsville, Birmingham, Montgomery, or Mobile). Before the trip, plan with the airport manager in advance. Secure safety rules and prepare the students to follow them. Ask students to make a list of questions they would like answered while on the trip. Write the list on chart paper.

After the trip, conduct follow-up activities such as the following:

1. Answer questions listed on chart paper;
2. Compare the visited airport with a small community airport;
3. Compare the visited airport with a major city airport;
4. Discuss vocabulary words for Unit-7. Write the vocabulary words in the Fantastic Flight Dictionary; and
5. Write thank you letters to the airport manager.

TOPIC 2: PLANNING AN AIRPORT

The activities, suggested materials, grade level, and related subject areas for each activity are summarized below.

<u>ACTIVITY</u>	<u>MATERIALS NEEDED</u>	<u>GRADE LEVELS</u> <u>SUBJECT</u>
5. Airport Diorama	Student Handouts 1, 2, and 3 shoe box glue cotton balls crayons scissors	Grades K-1 art language arts
6. Our Airport	guest speakers: airport manager Mayor Airport Board Commissioner Member	Grades 2-3 social studies language arts
7. Table Top Diorama	card table milk cartons/boxes tempra paint construction paper tape scissors glue toy cars and planes tree twigs	Grades 2-3 art social studies language arts

ACTIVITY 5: AIRPORT DIORAMA

Begin with interest-building questions such as:

1. What are some of the most important features of an airport?
2. Why are these features so important to the pilot and his passengers?
3. Why do you think a city would do a lot of planning before building an airport?

Distribute Student Handouts 1 and 2. Review the features of both handouts and compare. Distribute Student Handout 3. Tell students they will build an airport diorama using a shoe box and Student Handout 3. Before construction starts, help students by planning what is to be done inside the shoe box (color grass and sky; glue runway, tower, terminal, fuel truck, and jet in correct place; and complete scene with a cloud in the sky).

ACTIVITY 6: OUR AIRPORT

Direct students' attention to planning for a new airport or for expansion of an existing airport. Tell students a guest speaker will be coming to discuss planning for their local airport. Ask students to brainstorm a list of questions for the speaker such as the following:

1. How many years of planning does it take before building or expanding an airport?
2. How is a location for the airport decided?
3. How is the size of the airport decided?
4. Who does the planning?
5. Who pays for the land and building of the airport?
6. What part do local businesses or citizens play in airport planning?
7. What kind of planning is done for the future?

ACTIVITY 7: TABLE TOP DIORAMA

Divide the class into five groups. Tell the students they are to plan a new airport for their community. Discuss questions similar to the following:

1. Where will the airport be located? Why?
2. What size will it be? Why?
3. What facilities (taxiway, auto parking, tower, terminal, ramp, and hangars) will it have? Why?

Tell students that large cities have many aircraft landing and taking off each day. Therefore, they need a large airport with many facilities and services. Explain that small communities have fewer people needing the use of an airport and therefore, this type airport needs fewer facilities and services. Tell students to consider their community when constructing their table top diorama. Suggest that they cut grass, soil and runways out of construction paper. Tape to a card table top. Paint milk cartons and boxes to simulate buildings. Use tree twigs to simulate trees. Complete display with toy cars, truck and planes. Encourage creative use of other materials.

Ask each group to select a speaker to tell the class about their new community airport and the reasons for the airport location, size, and design.

Extended Activities

- Tell students to write a story using the following idea:

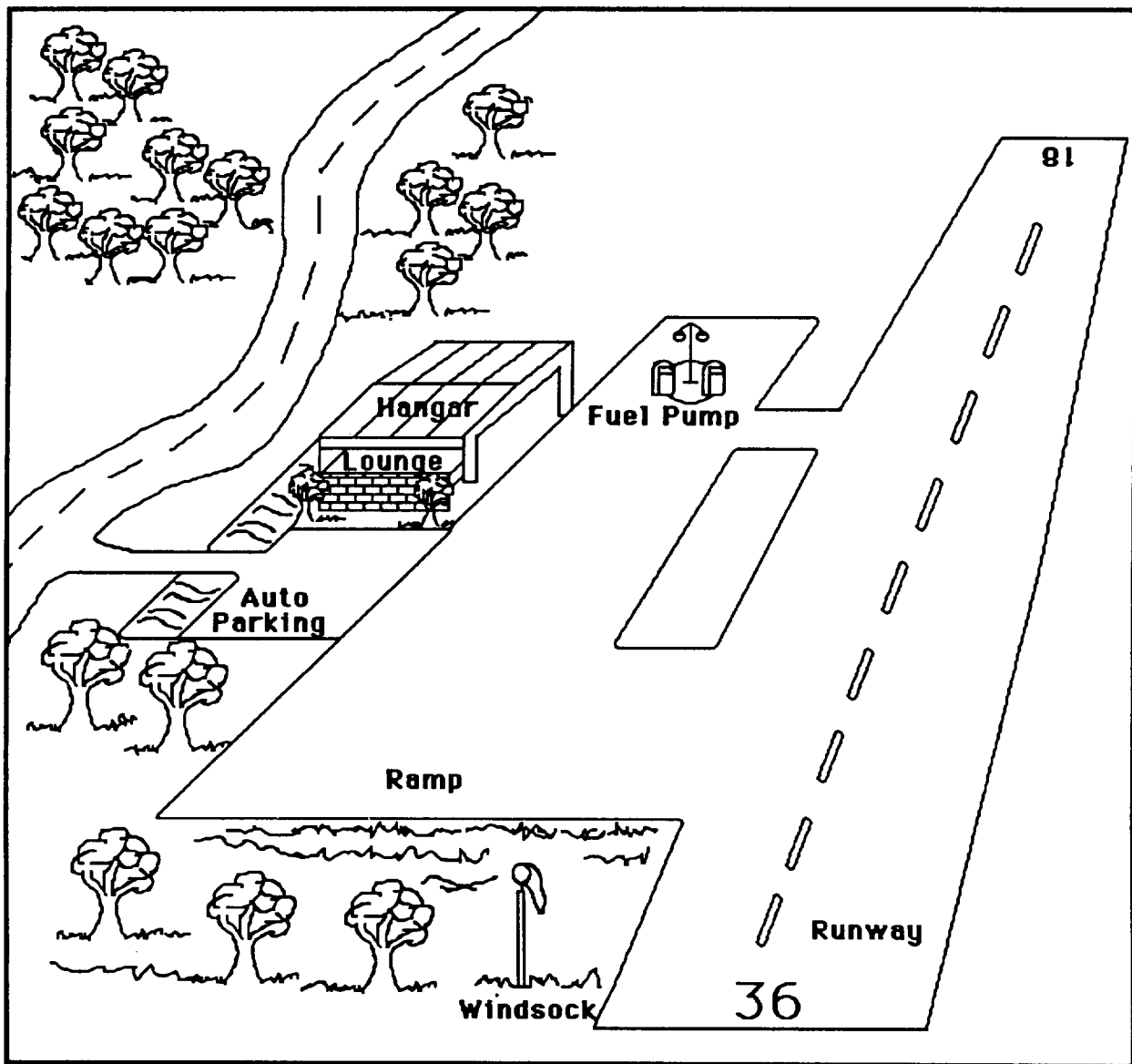
"The airport is a window to our community."

Ask students to illustrate their work. Have students share their stories with the class.

- Ask students to make a list of things a visitor may see through the community window. Ask them to consider changes to the list that would make the image of their community more inviting to a visitor.

UNIT 7 ACTIVITY 2
STUDENT HANDOUT 1

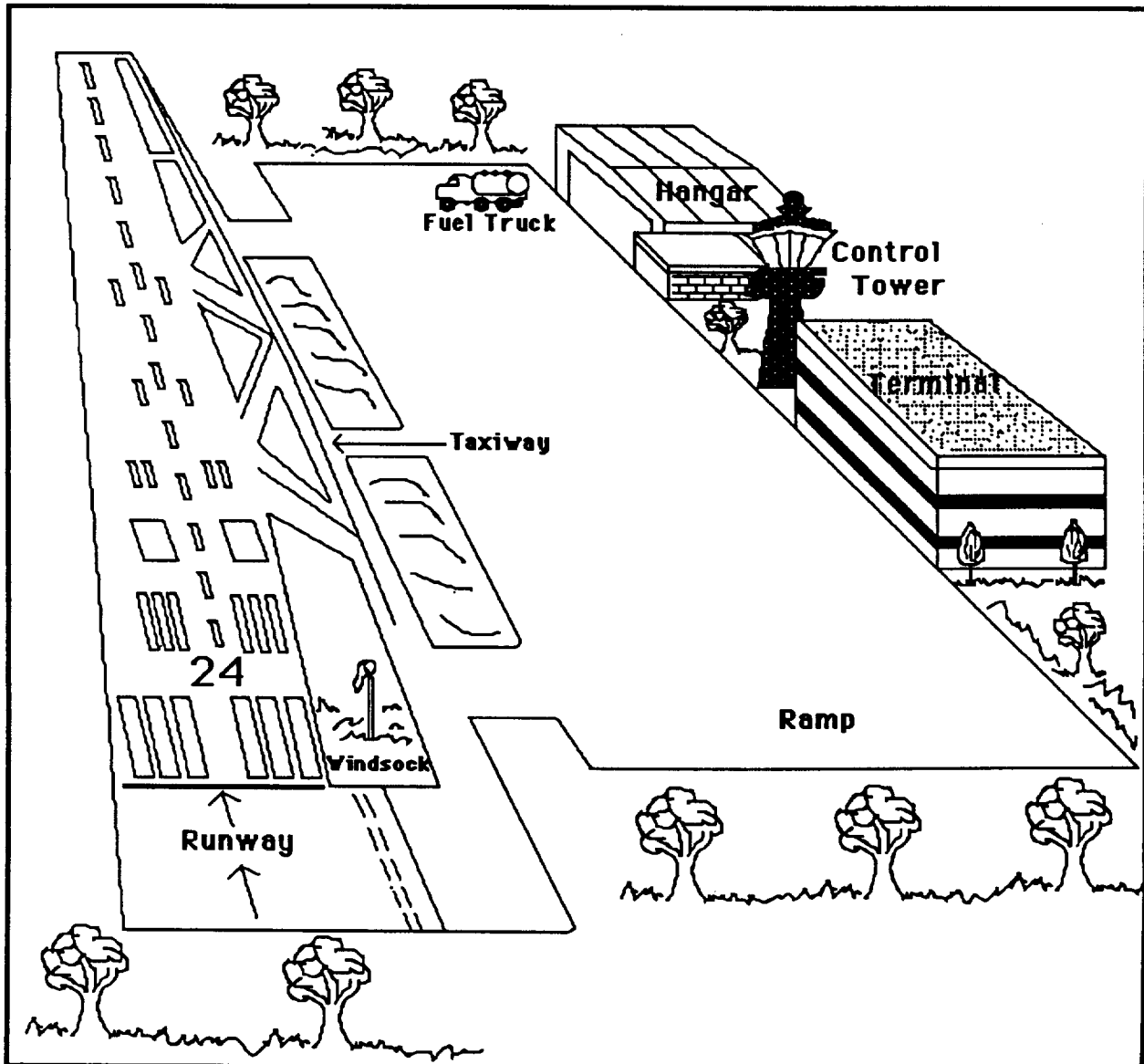
SMALL COMMUNITY AIRPORT



UNIT 7 ACTIVITY 3

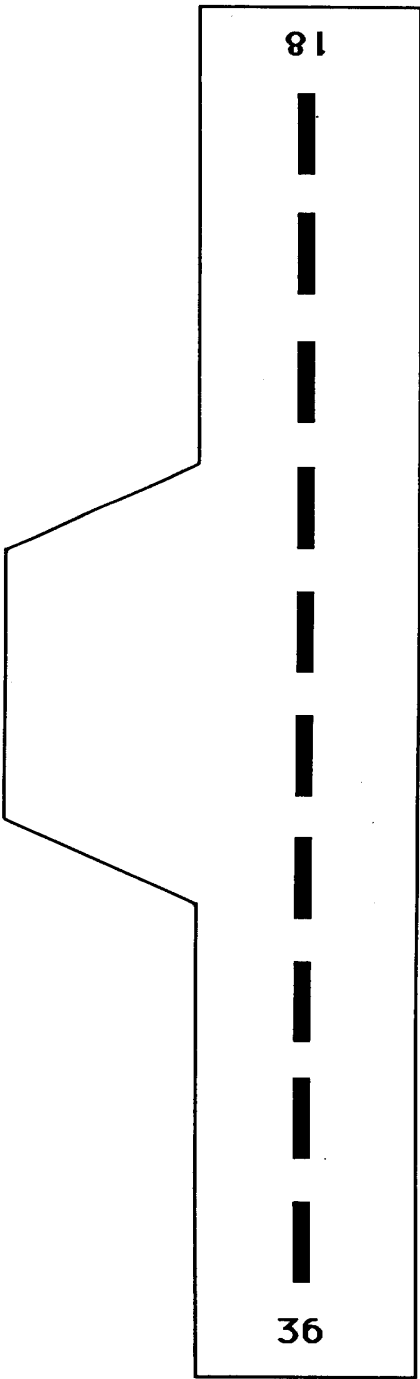
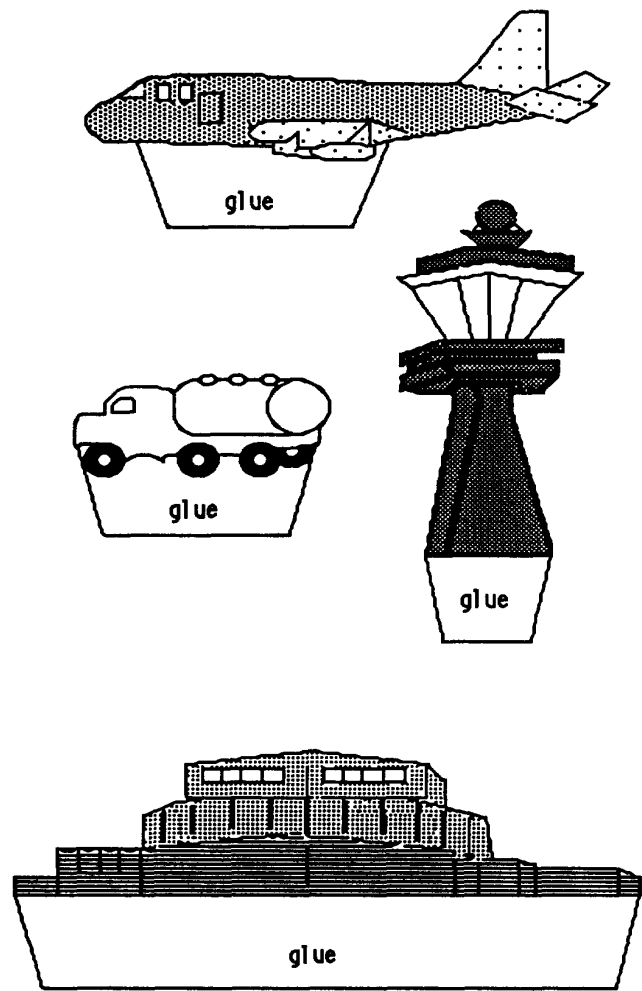
STUDENT HANDOUT 2

MAJOR CITY AIRPORT



UNIT 7 ACTIVITY 5

STUDENT HANDOUT 3



GLOSSARY

aerodynamics (aer-o-dy-nam'ics): the study of the forces of air acting on objects in motion relative to air.

aileron (a'le-ron): the moving parts, attached to the rear edge of plane wings, that help the plane tilt or roll.

air: a mixture of gases making up the atmosphere which surrounds the earth.

air cargo: the goods carried on an airplane.

airplane: an engine-driven, fixed-wing, heavier-than-air aircraft.

airline: a business that provides scheduled flights to carry passengers or cargo from place to place.

airport: a tract of level land where aircraft can take off and land; usually equipped with a control tower, hangars, and accommodations for passengers and cargo.

air traffic controller: a person who controls the movement of aircraft in the air and on the ground.

airspeed: the speed of the aircraft relative to the air through which it is moving.

airway: a designated air route for aircraft passage from airport to airport. Aids to air navigation such as beacons, radio ranges, and direction-finding equipment help pilots find their way.

altimeter (al-tim'e-ter): an instrument for measuring in feet the height . of the airplane above sea level.

altitude: the vertical distance from a given level (sea level) to an aircraft in flight.

GLOSSARY (Continued)

amphibian plane: an airplane that can land on both land and water.

anemometer (an-e-mom'e-ter): an instrument to measure speed of wind.

ascend: to climb.

atmosphere: the blanket of air surrounding the earth.

aviation: a term applied to all phases of the manufacture and operation of aircraft.

balloon: a bag filled with a gas that is lighter than air, propelled by the wind, and non-steerable.

bank: to tilt one wing toward the ground and the other toward the sky.

barometer: an instrument to measure pressure of the atmosphere.

beacon: a light or other signal indicating direction.

biplane: a plane with two sets of wings, one wing above the other.

blimp: a small dirigible that is lighter than air, propelled by an engine, and steerable.

bomber: a plane specially made to carry bombs.

check in: to report to the check-in desk at an airport with ticket and baggage before a flight.

cockpit: the place where a pilot sits to fly a plane. It contains the instruments and controls.

cold front: a mass of cold air overtaking a mass of warm air.

compass: an instrument used by pilots to determine direction.

GLOSSARY (Continued)

control tower: a glassed-in observation tower at large airports from which air traffic controllers observe and direct airport air and ground traffic.

course: the direction over the earth's surface that an airplane is intended to travel.

cowling: the metal covering for the engine that is similar to the hood of a car.

cumulus: a type of cloud formed in puffs or shaped like a dome.

degree: $1/360$ of a circle, or $1/90$ of a right angle.

descend: to go down.

dirigible (dir'i-gi-ble): a long cigar-shaped bag filled with a gas that is lighter than air, propelled by an engine, and steerable.

drag: the force that slows down a plane as it flies through the air.

elevators: the moving parts on the tail of a plane that move up or down to make the plane climb or descend.

engine: the part of the airplane which provides power, or propulsion, to pull the airplane through the air.

engineer: a member of the flight crew or ground crew who takes care of the engine and other moving parts.

flaps: the moving parts attached to the rear edge of plane wings which help to slow a plane down for landing.

GLOSSARY (Continued)

flight plan: the details written by the pilot which show where a plane is going, how long the flight will take, and other important facts.

forecast: a statement about what is expected to happen in the future.

force: a push or pull exerted on an object.

freight: cargo.

front (weather): boundary of two overlapping air masses. Cold air advancing on warm air is said to be a cold front; warm air advancing on cooler air is a warm front.

fuel: the gasoline or kerosene used to run engines.

fuselage (fu'se-lage): the streamlined body of an airplane to which are fastened the wings and tail.

gear: the understructure (wheels, skis, or pontoons) of an airplane which supports the airplane on land or water. Retractable gear folds up into the airplane in flight. Fixed gear does not retract or fold up.

glider: a plane without an engine.

gravity: the force which pulls toward the center of the earth.

hangar: a large building at the airport where planes are stored or repaired.

hang glider: a glider where the pilot hangs underneath the wing.

headset: headphones which fit over the pilot's ears to help him hear better.

GLOSSARY (Continued)

helicopter: an aircraft that becomes airborne by way of a rotating wing.

humidity: the amount of invisible moisture in a given mass of air.

instrument: a dial like a clock face which gives the pilot information about fuel, speed, direction, or altitude.

inventor: a person who makes or introduces a new thing or way of doing something.

jet aircraft: an aircraft that travels very fast and is propelled by a jet engine.

jet engine: an engine which turns air and fuel into a hot gas that shoots out the back of the engine and pushes the plane through the air.

knot: a measure of speed (one knot being one nautical mile per hour).

land: the act of making the airplane descend, lose flying speed, and make contact with the ground or water, thus ending the flight.

lift: the force needed to get a plane into the air.

lighter-than-air: aircraft that is lifted into the air by a gas that weighs less than air.

meteorology: the scientific study of the weather.

moisture: water in some form in the atmosphere.

monoplane: an airplane having one set of wings.

multi-engine: having more than one engine.

GLOSSARY (Continued)

navigate: to plan and follow a specified route from one airport to another airport.

nose wheel: the wheel at the front of a plane.

occluded front: warm air mass "sandwiched" between two cold air masses.

parachute: a fabric device attached to objects or persons to reduce the speed of descent.

pedals: the foot controls in the cockpit by which the pilot controls the action of the rudder.

pilot: the person who controls the airplane.

precipitation: any falling visible moisture: rain, snow, sleet, hail.

pressure: the continuous application of force.

propeller: two or more twisted blades which pull a plane forward as they turn.

radar: a way of finding out where an object is. Radio waves are sent out. When they meet an object, they bounce back to the radar set.

ramp: an area where airplanes are parked to be serviced or to pick up and discharge passengers and cargo.

rudder: the moving part on the tail that steers or turns the plane to the left or right.

runway: a long, straight road for planes to take off and land on.

seaplane: an airplane that takes off or lands on water.

GLOSSARY (Continued)

seat belt: the belt attached to the seat which fasten around the pilot and passengers to hold them firmly in their seats in bouncy air and during take-offs and landings.

sectional chart: a special map used by pilots to navigate from place to place.

simulator: a training machine on the ground which imitates flight in the air.

stationary front: a front along which one air mass does not replace another.

stratus: a layered cloud.

streamline: the shape of an object which causes air to flow smoothly around it.

supersonic: faster than the speed of sound.

symbol: a printed sign that represents a word.

tachometer (ta-kom'-e-ter): an instrument which measures the speed at which the engine crankshaft is turning, hence the propeller speed in r.p.m.'s (rounds per minute).

tail: the part of the airplane to which the rudder and elevators are attached.

takeoff: the part of the flight during which the airplane gains flying speed and becomes airborne.

taxi: to move a plane along the ground.

taxiway: the roads used by planes when they move on the ground.

GLOSSARY (Continued)

temperature: the degree of hot and cold.

terminal: a building on the airport where planes arrive or depart, people board planes, buy tickets, and have their luggage handled.

throttle: the lever which regulates the speed of an engine.

thrust: the force of the engines which drives a plane forward.

transmitter: the microphone or part of the radio that sends the message.

tricycle landing gear: the airplane's landing wheels--two main wheels and a steerable nose wheel.

turn: the maneuver which the airplane makes in changing its direction of flight.

warm front: a mass of warm air overtaking a mass of cold air.

weather: the condition of the atmosphere at a given time with respect to air motion, moisture, temperature, and air pressure.

weight: how heavy something is.

wind: air in motion.

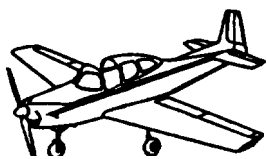
windsock: a cone-shaped, open-ended cylinder of cloth which catches the wind and shows its direction.

wing: the part of the airplane shaped like an airfoil and designed in such a way as to provide lift when air flows over it.

FANTASTIC FLIGHT DICTIONARY



Aa



airplane

Bb



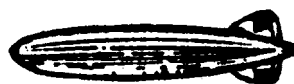
blimp

Cc



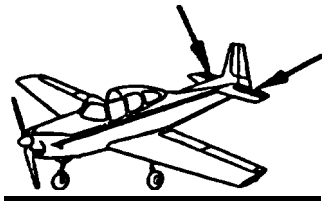
cloud

Dd



dirigible

Ee



elevator

Ff



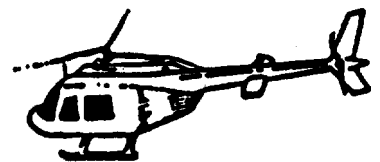
fuselage

Gg



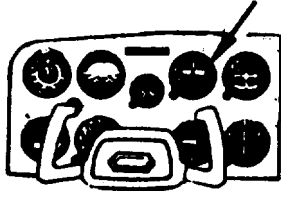
glider

Hh



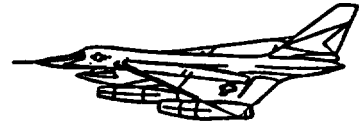
helicopter

Ii



instruments

Jj



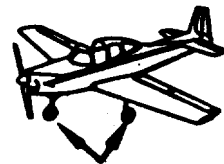
jet

Kk



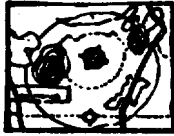
kite

Li



landing gear

Mm



maps

Nn

Oo

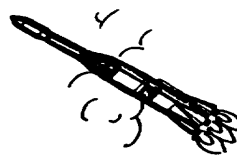
Pp



parachute

Qq

Rr



rocket

Ss



seat belt

Tt

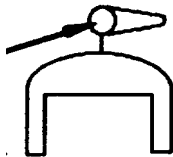


terminal

Uu

Vv

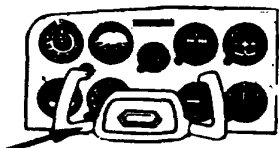
Ww



windsock

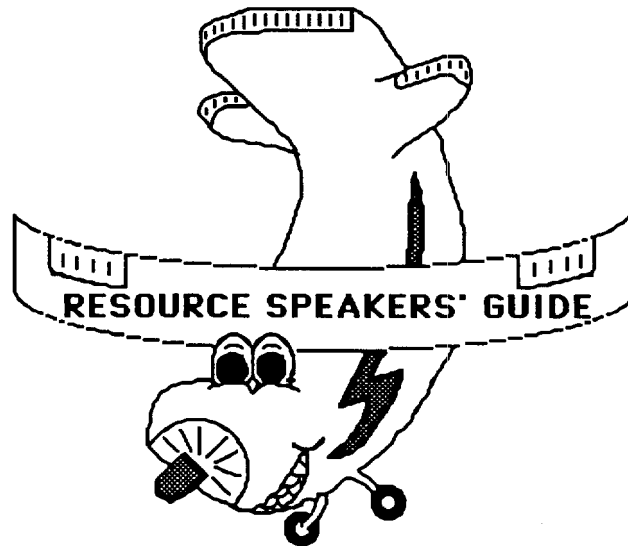
Xx

Yy



yoke

Zz



Thank you for taking time from your busy schedule to share your career experiences with our students. Students who live in a world of aviation and space need role models to look up to for guidance and help in planning for the future. We ask that you leave a vital message: "EDUCATION IS THE KEY TO YOUR FUTURE,- as you encourage students by discussing topics such as the following:

1. a description of what you do,
2. the educational requirements for what you do,
3. certain job-related responsibilities that you have found to be important (such as arriving to work on time, being dependable, and having necessary work materials on hand),
4. ways in which reading, writing, mathematics, and science are used in your job,
5. the importance of staying in school,
6. the importance of academic excellence or doing your best, and
7. the importance of saying NO to drugs.

CHILDREN'S BOOKS

FLIGHT - NONFICTION GRADE KINDERGARTEN - TWO

- Baker, Donna. Want to be a Pilot. Chicago: Childrens Press, Inc., 1978.
- Barton, Byron. Airplanes. New York: Harper and Row Publishers, 1986.
- Greene, Carla. I Want to be an Airline Hostess. Chicago: Childrens Press, Inc., 1960.
- _____. Airplane Pilots; What Do They Do? New York: Harper and Row Publishers, 1964.
- Ingoglia, Gina. The Big Book of Real Airplanes. New York: Grossett and Dunlap, Inc., 1987.
- Johnson, Spencer. The Value of Patience; The Story of the Wright Brothers. La Jolla, CA: Value Communications, 1976.
- Kanetzke, Howard. Read About Airplanes and Balloons. Raintree, 1978.
- Peterson, David. Airplanes. Chicago: Childrens Press, Inc., 1981.
- _____. Helicopters. Chicago: Childrens Press, Inc., 1983.
- Petty, Kate. On a Plane. New York: Franklin Watts, Inc., 1984.
- Provensen, Alice. The Glorious Flight. New York: Viking Press, Inc., 1983.
- Radlauer, Ed. Flying Mania. Chicago: Childrens Press, Inc., 1974.
- Wilkinson, Jean. Come to work with Us in an Airport. Sextant, 1970.

CHILDREN'S BOOKS

FLIGHT - NONFICTION GRADE THREE AND UP

Bagwell, Richard. This Is an Airport. Chicago: Follett Publishing Company, 1967.

Baker, David. Military Aircraft Library. Rourke, 1987.

Set of six books

Bombers

Helicopters

Land Fighters

Navy Fighters

Research Planes

Spy Planes

Barreft, N.S. Airliners. New York: Franklin Watts, Inc., 1984.

_____. Helicopters. New York: Franklin Wafts, Inc., 1985.

Gennett, Ann. Aviation. Dillion Press, 1986.

Halacy, Dan. Soaring. Philadelphia: J.B. Lippincott Company, 1977.

Heatley, C.J. The Cutting Edge: Naval Aviators. Thomasson-Grant, 1987.

Heatley, Michael. Jet Aircraft, 1984.

Knight, Clayton. Big Book of Real Helicopters. New York: Grossett and Dunlap, Inc.

Makanna, Philip. Ghosts Vintage Aircraft of World War II.
Thomasson-Grant, 1987.

Meyer, Mark. Wings. Thomasson-Grant, 1986.

GRADE THREE AND UP

NONFICTION (Continued)

- Munson, Kenneth. Book of Warplanes. Crescent, 1985.
- Nicklaus, Carol. Flying, Gliding and Whirling, Making Things That Fly. New York: Franklin Wafts, Inc., 1981.
- Pitcher, Caroline. Build Your Own Airport. New York: Franklin Wafts, Inc., 1985.
- Settle, Mary. Story of Flight. New York: Random House, Inc., 1967.
- Simon, Seymour. Paper Airplane Book. New York: Viking Press, Inc., 1971.
- Thompson, Brenda. Famous. Planes. Minneapolis: Lerner Publishing Company, 1977.
- Yenne, Bill. Great Book of Warplanes of the 1980's Gallery, 1986.
- _____. U.S. Airforce Today. Gallery, 1986.

CHILDREN'S BOOKS

FLIGHT - FICTION GRADE KINDERGARTEN - THREE

- Calhoun, Mary. Hot Air Henry. Morrow, 1981.
- Coerr, Eleanor. The Big Balloon Race. New York: Harper and Row Publishers, 1981.
- Delage, Ida. Old Witch Gets a Surprise. Scarsdale, N.Y.: Garrard Publishing Company, 1981.
- Lenski, Lois. Little Airplane. New York: Oxford University Press, 1983.
- Scarry, Richard. Richard Scarry's Great Big Air Book. New York: Random House, Inc., 1971.
- Wasserman, Jack. Chopper Malone Series (Helicopter Adventures). West Chester, IL.: Benefic Press, 1976.
- Wildsmith, Brian. Bear's Adventure. New York: Pantheon Books, 1981.

CHILDREN'S BOOKS

SPACE FLIGHT GRADE KINDERGARTEN - TWO

Attmore, Stephen. Now You Can Read About Space Travel. Brimax,
1985.

_____. Spacecraft. Brimax, 1985.

Blacknall, Carolyn. Sally Ride* American's First Woman in Space.
Dillion Press, 1986.

Friskey, Margaret. Space Shuttles. Chicago: Childrens Press, Inc.,
1982.

Gaffney, Timothy. Kennedy Space Center. Chicago: Childrens Press,
Inc., 1985.

Petty, Kate. Satellites. New York: Franklin Watts, Inc., 1984.

_____. Space Shuttle. New York: Franklin Watts, Inc., 1984.

Wheat, Janis. Lets Go to the Moon. Washington: National Geographic,
1977.

CHILDREN'S BOOKS

SPACE FLIGHT GRADE THREE AND UP

Appel, Fred. The Moon and Beyond. Aldus, 1971.

Baker, David. Today's World in Space. Vero Beach: Rourke, 1987.

Set of six books

Believe It or Not Space Facts

Exploring Mars

Factories in Space

t Want to Fly the Shuffle

Journey to the Outer Planets

Peace in Space

Branley. A Book of Moon Rockets for You. New York: Crowell Collier and Macmillan, Inc., 1970.

Fradin, Dennis. Moon Flights. Chicago: Childrens Press, Inc., 1985.

_____. Skylab. Chicago: Childrens Press, Inc., 1984.

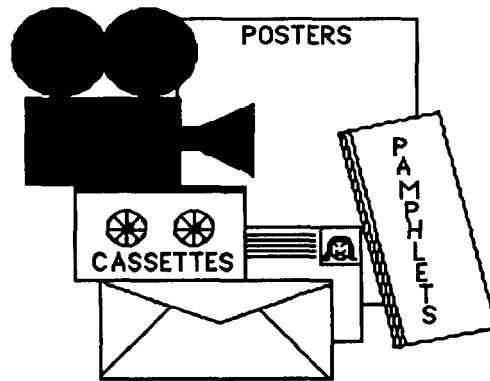
Hendrickson, Walter. Apollo 11 to the Moon. Irvington-on-Hudson, N. Y.: Harvey House, Inc., 1970.

Martin, Patricia. Christa McAuliffe Reach for the Stars. Vero Beach: Rourke, 1987.

Maurer, Richard. Nova Space Explorers Guide. New York: Crown Publishers, Inc., 1986.

McPhee, Raymond. Your Future in Space. New York: Crown Publishers, Inc., 1987.

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Arthur G. Jones, Director
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Montgomery, Alabama 36130
(205) 261-4480

Information pertaining to aviation/space education, Alabama aerospace activities, and Alabama airports is available upon request.

ALABAMA SPACE AND ROCKET CENTER

Attn: NASA Teacher Resource Center
Huntsville, Alabama 35807

A variety of videotapes, slides, audiotapes, publications, lesson plans, and activities are available for educators to copy at the center. Further information may be requested.

BOEING COMMERCIAL AIRPLANE COMPANY

MS 65-47
P. O. Box 3707
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A free information packet about the Boeing Company may be requested. Included in the packet are color posters of fifteen different airplanes manufactured by Boeing.

CESSNA AIRCRAFT COMPANY

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An order form for complete listing of educational materials may be requested.

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Free materials, such as activity booklets, coloring books, posters, single-concept learning packets, teacher reference books and more, are available for the educator. An order form may be requested on school letterhead stationery.

FEDERAL AVIATION ADMINISTRATION Jack K. Barker

Southern Region, Public Affairs
P. O. Box 20636
Atlanta, Georgia 30320
(404) 763-7201

Materials free to educators include activities for students and informative teaching aids, such as:

- Aviation Science Activities for Elementary Grades
- A Trip to the Airport
- Teacher's Guide for Aviation Education
- Demonstration Aids for Aviation Education
- FAA Film Catalog

A complete list of available materials may be requested.

FEDERAL EXPRESS CORPORATION

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Free styrofoam jets are available for students to assemble. Item code DC-10 should be used when requesting the jets.

GENERAL AVIATION MANUFACTURERS ASSOCIATION

Suite 801
1400 K Street, N. W.
Washington, D.C. 20005

Material such as Activities and Resources to Use in General Aviation Teaching Units are free upon request. A complete Aviation Education Publication list may be requested.

JEROME ENTERPRISES, INC.

6500 North West 15th Avenue
Fort Lauderdale, Florida 33309

Cassette tapes that stimulate the students' imagination are available. A complete list of Little Thinker tapes, such as "Ways to Travel: Balloon Trip," may be requested.

MARTIN MARIETTA

Michoud Aerospace
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P.O. Box 29304
New Orleans, Louisiana 70189

Materials such as A Teacher's Companion To The Space Station contain activities geared to the elementary student. A complete list of available education materials may be requested.

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Materials such as What We Do and colorful airplane posters are free upon request.

MIDWEST PRODUCTS COMPANY, INC.

P. O. Box 564

Hobart, Indiana 46342

Models such as the Star Glider are available for building by students in grades one and up. An order form for the Star Glider and more may be requested.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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Elementary classroom activities, charts, posters and more are available. Placement on the NASA educator mailing list may be requested.

NATIONAL AIR AND SPACE MUSEUM

Smithsonian Institution

Washington, D. C. 20560

The educational materials list for grades kindergarten-three may be requested.

NINETY - NINES

P. O. 59965

Oklahoma City, Oklahoma 73519

A list of educational materials for elementary students may be requested.

SIKORSKY AIRCRAFT

Public Relations
North Main Street
Stratford, Connecticut 06601

Free materials available include a biography of Igor Sikorsky, a "What Makes a Helicopter Fly" pamphlet, and colorful helicopter posters.

WOMEN OF NATIONAL AGRICULTURAL AVIATION ASSOCIATION

Ester Pickle
P.O. Box 461
Cimarron, Kansas 67835

Coloring books, such as "Ag Aviation" and "Farmer John", are excellent for teaching kindergarten and first grade students the importance of aviation to our food supply. Order form may be requested.

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